

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
27 October 2005 (27.10.2005)

PCT

(10) International Publication Number
WO 2005/101605 A1

(51) International Patent Classification⁷: **H02H 3/33**

(21) International Application Number:
PCT/IT2004/000222

(22) International Filing Date: 19 April 2004 (19.04.2004)

(25) Filing Language: Italian

(26) Publication Language: English

(71) Applicant (for all designated States except US): **TRINITY S.A.** [LU/LU]; 3 Place d'Argent, 1415 Luxembourg (LU).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **ZANDONELLA BALCO, Sandro** [IT/IT]; Via S.A. Sauli, 3, I-20127 Milano (IT).

(74) Agents: **FERRONI, Filippo** et al.; Dragotti & Associati S.r.l., Galleria San Babila 4/C, I-20122 Milano (IT).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

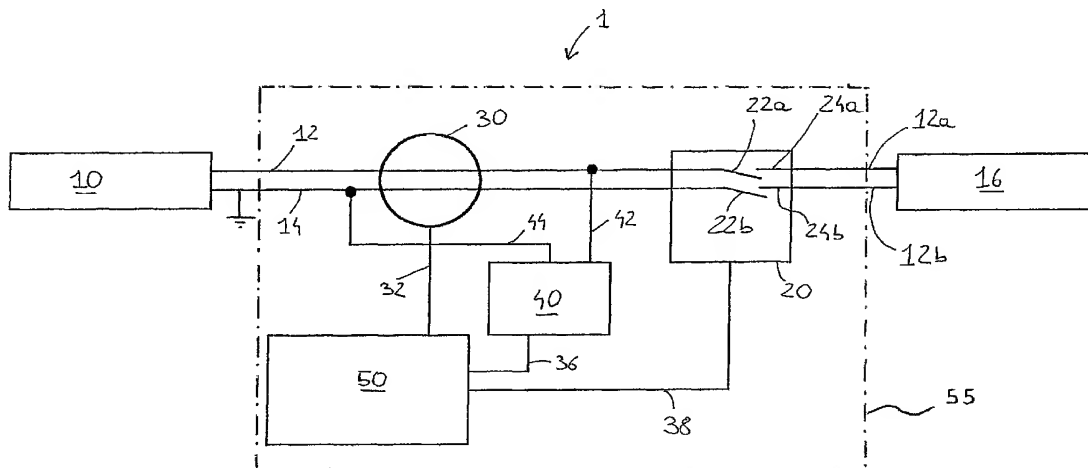
— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND SAFETY DEVICE FOR GROUND FAULT PROTECTION CIRCUIT



(57) Abstract: The invention refers to a method and an apparatus (1) for protecting people against leakage currents while using appliances such as home appliances or the like. The apparatus (1) is provided with a differential switch (20) normally open and a differential current transformer (39) which generates a signal proportional to the leakage current, an elaboration unit (50) interfaced with the latter acquires said signal and keeps the switch (20) closed until a dangerous condition is met, corresponding to an acquired signal having a magnitude greater than a limit value.

WO 2005/101605 A1